

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 10/529,351A
Source: IFWP
Date Processed by STIC: 10/5/06

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 10/05/2006

PATENT APPLICATION: US/10/529,351A

TIME: 09:57:38

Input Set : E:\Sequence Listing P5101R1.txt

Output Set: N:\CRF4\10052006\J529351A.raw

3 <110> APPLICANT: THOMAS D. WU
4 ZEMIN ZHANG
6 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE DIAGNOSIS AND
7 TREATMENT OF TUMOR
9 <130> FILE REFERENCE: P5101R1-US
11 <140> CURRENT APPLICATION NUMBER: US 10/529,351A
12 <141> CURRENT FILING DATE: 2005-03-25
14 <150> PRIOR APPLICATION NUMBER: PCT/US03/28547
15 <151> PRIOR FILING DATE: 2003-09-29
17 <150> PRIOR APPLICATION NUMBER: US 60/414,971
18 <151> PRIOR FILING DATE: 2002-10-02
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23 <211> LENGTH: 484
24 <212> TYPE: DNA
25 <213> ORGANISM: Homo sapiens
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30 ccctctcagc cctcctaag acctccggcc tagccatgtg atttcacttc 100
32 cactccacaa cctcctcat actaggccta ctaaccaaca cactaaccat 150
34 ataccaatga tggcgcgatg taacacgaga aagcacatac caaggccacc 200
36 acacaccacc tgtccagaaa ggccttcgat acgggataat cctattttatt 250
38 acctcagaag tttttttctt cgcaggattt ttctgagcct tttaccactc 300
40 cagcctagct cccacccccc aactaggggg aactggccc ccaacaggca 350
42 tcaccccgct aaatccccta gaagtccac tcctaaacac atccgtatta 400
44 ctgcgcatcag gggtatcaat cacctgagct caccatagtc taatagtcta 450
46 ttttaccctc ctacaagcct cagagtactt cgag 484
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49 <211> LENGTH: 841
50 <212> TYPE: DNA
51 <213> ORGANISM: Homo sapiens
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54 tctaatacct attgatctgt cactttctcc catcacgctc aggtgggacc 50
56 attcagttgc aggaaaacaa gcttaacacg ccactaatt ctacattatg 100
58 gtgagttcta taattatatt attatatatt acagtgtaat aatggaaata 150
60 aagtgcctaa taaatgcaaa tgtgcttaca tcttttgccc cagctcctac 200
62 ctcccggcag cctctccagg ccagaactt tctccagtca gcctctacag 250
64 accaagctca tgactcaca tggcctattt agggccatac cctatgtcac 300
66 ggcagcctcc gcagatgagg ctactgcctc acaacagcct ccacaggcac 350
68 agctccatcg ttacaatggc ctcttttagac ccagctcctg cctcccagcc 400
70 ttctctccag gccctgaact ttctcaagtc gacctcacca ggcccagctc 450
72 atgcttcttt gcagcctctc caggcccagc tcctgcatct tgggtggcccc 500
74 tccaggccca gcctctgcct cccgtcagcc tctacagtc caaagtctgc 550

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78  acccagatgg tgtctcactg tggcatcctc aggcgaagct cctgcctttc 650
80  ggcagcctct ccaggcccag ctctcctcgc ctcccagtg cctctttcgg 700
82  cccagcccag ctcatgcctc ccggcggcct tcccaagccc cgcttttgac 750
84  tttcgggtggc ctctgcaggc ctcgacaagg cccagcctcc tgccctccga 800
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89  <211> LENGTH: 502
90  <212> TYPE: DNA
91  <213> ORGANISM: Homo sapiens
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96  cagcctccgc agatgagcct actgcctcac aacagcctcc acaggcacag 100
98  ctccatcggt acaatggcct cttagaccc agctcctgcc tcccagcctt 150
100 ctctccaggc tctgaacttt ctcaggtctc cctctgttgt ccaaggctgg 200
102 agtgtagtag tgctatcgca gctgactgca gcctcaacct tccaggctga 250
104 agcgatcctc ccacctcaac ctcccacgtg gctgagacta cagggtgctt 300
106 ccactatgcc caactaacat ttggaatttt cgtatacgtg gattccagag 350
108 ggggtgacac gaaacgtggg accattcagt tgcaggaaaa caagcttaac 400
110 acgcccacta attctacatt atgctcctac ctcccggcag cctctccagg 450
112 cccagaactt tctccagtca gcctctacag accaagctca tgactcaca 500
114 tg 502
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117 <211> LENGTH: 3309
118 <212> TYPE: DNA
119 <213> ORGANISM: Homo sapiens
121 <400> SEQUENCE: 4
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124 ctgcttcac ggggggacct gccaggactg ggcattgggc gggggcttca 100
126 cctgcagctg cccggcaggc aggggaggcg ccgtctgtga gaagggtgctt 150
128 ggcgcccctg tgccggcctt cgaggcgccg tcttctctgg ccttccccac 200
130 tctccgcgcc taccacacgc tgcgcctggc actggaattc cgggcgctgg 250
132 agcctcaggg gctgctgctg tacaatggca acgcccgggg caaggacttc 300
134 ctggcattgg cgctgctaga tggccgcgtg cagctcaggt ttgacacagg 350
136 ttcggggccg gcggtgctga ccagtgccgt gccggtagag ccgggcccagt 400
138 ggcaccgcct ggagctgtcc cggcactggc gccggggcac cctctcggtg 450
140 gatggtgaga cccctgttct gggcgagagt cccagtggca ccgacggcct 500
142 caacctggac acagacctt ttgtgggcgg cgtaccagag gaccaggctg 550
144 ccgtggcgct ggagcggacc ttcgtgggcg ccggcctgag ggggtgcatc 600
146 cgtttgctgg acgtcaacaa ccagcgcttg gagcttgga ttgggcccgg 650
148 ggctgccacc cgaggctctg gcgtgggcaa gtgcggggac caccctgcc 700
150 tgcccaaccc ctgccatggc ggggccccat gccagaacct ggaggctgga 750
152 aggttcatt gccagtgcc gccggccgc gtcggaccaa cctgtgccga 800
154 tgagaagagc ccctgccagc ccaaccctg ccatggggcg gcgccctgcc 850
156 gtgtgctgcc cgagggtggt gctcagtgcg agtgccccct ggggcgtgag 900
158 ggcaccttct ccagacagc ctcgggcag gacggctctg ggcccttct 950
160 ggctgacttc aacggcttct cccacctgga gctgagaggc ctgcacacct 1000
162 ttgcacggga cctgggggag aagatggcgc tggaggtcgt gttcctggca 1050
164 cgaggcccca gcggcctcct gctctacaac gggcagaaga cggacggcaa 1100

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168 acgacctggg caagggggca gcggtcatca ggagcaggga gccagtcacc 1200
170 ctgggagcct ggaccagggt ctacttgagg cgaaacggcc gcaaggggtgc 1250
172 cctgcgtgtg ggcgacggcc cccgtgtgtt gggggagtcc ccggttccgc 1300
174 acaccgtcct caacctgaag gagccgctct acgtaggggg cgctcccagc 1350
176 ttcagcaagc tggcccgtgc tgetgccgtg tcctctggct tcgacgggtg 1400
178 catccagctg gtctccctcg gaggcggcca qctactgacc ccggagcacg 1450
180 tgctgcgcca ggtggacgtc acgtcctttg caggtcaccc ctgcacccgg 1500
182 gcctcaggcc acccctgcct caatggggcc tcctgcgtcc cgagggaggc 1550
184 tgcctatgtg tgcctgtgtc ccgggggatt ctcaggaccg cactgcgaga 1600
186 aggggctggg ggagaagtca gcgggggacg tggatacctt ggcccttgac 1650
188 gggcgagcct ttgtcagta cctcaacgct gtgaccgaga gcgagaaggc 1700
190 actgcagagc aaccactttg aactgagcct gcgcactgag gccacgcagg 1750
192 ggctggtgct ctggagtggc aaggccacgg agcgggcaga ctatgtggca 1800
194 ctggccattg tggacgggca cctgcaactg agctacaacc tgggctccca 1850
196 gcccgtggtg ctgcgttcca ccgtgcccgt caacaccaac cgctggttgc 1900
198 gggctcgtgg acatagggag cagaggggaag gtccctgca ggtgggcaat 1950
200 gagggccctg tgaccggctc cccccgctg ggcgccacgc agctggacac 2000
202 tgatggagcc ctgtggcttg ggggcctgca ggagctgccg gtgggcccag 2050
204 cactgcccaa ggcctacggc acaggctttg tgggctgctt gcgggacgtg 2100
206 gtggtggggc ggcacccgct gcacctgctg gaggacgccg tcaccaagcc 2150
208 agagctgcgg ccctgccccca ccccatgagc tggcaccaga gccccgcgcc 2200
210 cgctgtaatt attttctatt tttgtaaact tgttgctttt tgatatgatt 2250
212 ttcttgccct agtggtggcc ggagggactg ctggcccggc ctcccttccg 2300
214 tccaggcagc cgtgctgcag acagacctag tgccgaggga tggacaggcg 2350
216 aggtggcagc gtggagggct cggcgtggat ggcagcctca ggacacacac 2400
218 ccctgcctca agtgctgag ccccgccctt gcaactgcgc tgccccacgg 2450
220 tgtccccgcc gggaagcagc cccggctcct gaatcacctt cgctccgtca 2500
222 ggcgggacac gtgtcccaga gaggaagggg ctgctgaggt ctgatggggc 2550
224 ccttccctcc ggtagcccca cagggccttt ccaagcccc atttgagctg 2600
226 ctccctccct tgtgtgctct gggccctgcc tcggcctcct gcgccaatac 2650
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242 ctactgcaa atcctcccc aagcgtcagt gaaagtcgtc cttgtctcag 3050
244 aatgaccagg ggccagccag tgtctgacca aggtcaaggg gcaggtgcag 3100
246 aggtggcagg gatggctccg aagccagaaa tgccctaaac tgcaacgtcc 3150
248 cgtcccttcc ccacccccat cccatcccca ccccagccc cagcccagtc 3200
250 ctcttaggag caggaccgga tgaagcgggc ggcgggtggg ctgggtgccg 3250
252 tgttactaac tctagtatgt ttctgtgtca atcgctgtga aataaagtct 3300
254 gaaaacttt 3309
256 <210> SEQ ID NO: 5
257 <211> LENGTH: 1913
258 <212> TYPE: PRT
259 <213> ORGANISM: Homo sapiens

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261 <400> SEQUENCE: 5

262	Met	Leu	Asn	Ser	Ser	Leu	Met	Arg	Ile	Thr	Leu	Arg	Asn	Leu	Glu
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265	Glu	Val	Glu	Phe	Cys	Val	Glu	Asp	Lys	Pro	Gly	Thr	His	Phe	Thr
266					20					25					30
268	Pro	Val	Pro	Pro	Thr	Pro	Pro	Asp	Ala	Cys	Arg	Gly	Met	Leu	Cys
269					35					40					45
271	Gly	Phe	Gly	Ala	Val	Cys	Glu	Pro	Asn	Ala	Glu	Gly	Pro	Gly	Arg
272					50					55					60
274	Ala	Ser	Cys	Val	Cys	Lys	Lys	Ser	Pro	Cys	Pro	Ser	Val	Val	Ala
275					65					70					75
277	Pro	Val	Cys	Gly	Ser	Asp	Ala	Ser	Thr	Tyr	Ser	Asn	Glu	Cys	Glu
278					80					85					90
280	Leu	Gln	Arg	Ala	Gln	Cys	Ser	Gln	Gln	Arg	Arg	Ile	Arg	Leu	Leu
281					95					100					105
283	Ser	Arg	Gly	Pro	Cys	Gly	Ser	Arg	Asp	Pro	Cys	Ser	Asn	Val	Thr
284					110					115					120
286	Cys	Ser	Phe	Gly	Ser	Thr	Cys	Ala	Arg	Ser	Ala	Asp	Gly	Leu	Thr
287					125					130					135
289	Ala	Ser	Cys	Leu	Cys	Pro	Ala	Thr	Cys	Arg	Gly	Ala	Pro	Glu	Gly
290					140					145					150
292	Thr	Val	Cys	Gly	Ser	Asp	Gly	Ala	Asp	Tyr	Pro	Gly	Glu	Cys	Gln
293					155					160					165
295	Leu	Leu	Arg	Arg	Ala	Cys	Ala	Arg	Gln	Glu	Asn	Val	Phe	Lys	Lys
296					170					175					180
298	Phe	Asp	Gly	Pro	Cys	Asp	Pro	Cys	Gln	Gly	Ala	Leu	Pro	Asp	Pro
299					185					190					195
301	Ser	Arg	Ser	Cys	Arg	Val	Asn	Pro	Arg	Thr	Arg	Arg	Pro	Glu	Met
302					200					205					210
304	Leu	Leu	Arg	Pro	Glu	Ser	Cys	Pro	Ala	Arg	Gln	Ala	Pro	Val	Cys
305					215					220					225
307	Gly	Asp	Asp	Gly	Val	Thr	Tyr	Glu	Asn	Asp	Cys	Val	Met	Gly	Arg
308					230					235					240
310	Ser	Gly	Ala	Ala	Arg	Gly	Leu	Leu	Leu	Gln	Lys	Val	Arg	Ser	Gly
311					245					250					255
313	Gln	Cys	Gln	Gly	Arg	Asp	Gln	Cys	Pro	Glu	Pro	Cys	Arg	Phe	Asn
314					260					265					270
316	Ala	Val	Cys	Leu	Ser	Arg	Arg	Gly	Arg	Pro	Arg	Cys	Ser	Cys	Asp
317					275					280					285
319	Arg	Val	Thr	Cys	Asp	Gly	Ala	Tyr	Arg	Pro	Val	Cys	Ala	Gln	Asp
320					290					295					300
322	Gly	Arg	Thr	Tyr	Asp	Ser	Asp	Cys	Trp	Arg	Gln	Gln	Ala	Glu	Cys
323					305					310					315
325	Arg	Gln	Gln	Arg	Ala	Ile	Pro	Ser	Lys	His	Gln	Gly	Pro	Cys	Asp
326					320					325					330
328	Gln	Ala	Pro	Ser	Pro	Cys	Leu	Gly	Val	Gln	Cys	Ala	Phe	Gly	Ala
329					335					340					345
331	Thr	Cys	Ala	Val	Lys	Asn	Gly	Gln	Ala	Ala	Cys	Glu	Cys	Leu	Gln
332					350					355					360

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334 Ala Cys Ser Ser Leu Tyr Asp Pro Val Cys Gly Ser Asp Gly Val
335                               365                               370                               375
337 Thr Tyr Gly Ser Ala Cys Glu Leu Glu Ala Thr Ala Cys Thr Leu
338                               380                               385                               390
340 Gly Arg Glu Ile Gln Val Ala Arg Lys Gly Pro Cys Asp Arg Cys
341                               395                               400                               405
343 Gly Gln Cys Arg Phe Gly Ala Leu Cys Glu Ala Glu Thr Gly Arg
344                               410                               415                               420
346 Cys Val Cys Pro Ser Glu Cys Val Ala Leu Ala Gln Pro Val Cys
347                               425                               430                               435
349 Gly Ser Asp Gly His Thr Tyr Pro Ser Glu Cys Met Leu His Val
350                               440                               445                               450
352 His Ala Cys Thr His Gln Ile Ser Leu His Val Ala Ser Ala Gly
353                               455                               460                               465
355 Pro Cys Glu Thr Cys Gly Asp Ala Val Cys Ala Phe Gly Ala Val
356                               470                               475                               480
358 Cys Ser Ala Gly Gln Cys Val Cys Pro Arg Cys Glu His Pro Pro
359                               485                               490                               495
361 Pro Gly Pro Val Cys Gly Ser Asp Gly Val Thr Tyr Gly Ser Ala
362                               500                               505                               510
364 Cys Glu Leu Arg Glu Ala Ala Cys Leu Gln Gln Thr Gln Ile Glu
365                               515                               520                               525
367 Glu Ala Arg Ala Gly Pro Cys Glu Gln Ala Glu Cys Gly Ser Gly
368                               530                               535                               540
370 Gly Ser Gly Ser Gly Glu Asp Gly Asp Cys Glu Gln Glu Leu Cys
371                               545                               550                               555
373 Arg Gln Arg Gly Gly Ile Trp Asp Glu Asp Ser Glu Asp Gly Pro
374                               560                               565                               570
376 Cys Val Cys Asp Phe Ser Cys Gln Ser Val Pro Gly Ser Pro Val
377                               575                               580                               585
379 Cys Gly Ser Asp Gly Val Thr Tyr Ser Thr Glu Cys Glu Leu Lys
380                               590                               595                               600
382 Lys Ala Arg Cys Glu Ser Gln Arg Gly Leu Tyr Val Ala Ala Gln
383                               605                               610                               615
385 Gly Ala Cys Arg Gly Pro Thr Phe Ala Pro Leu Pro Pro Val Ala
386                               620                               625                               630
388 Pro Leu His Cys Ala Gln Thr Pro Tyr Gly Cys Cys Gln Asp Asn
389                               635                               640                               645
391 Ile Thr Ala Ala Arg Gly Val Gly Leu Ala Gly Cys Pro Ser Ala
392                               650                               655                               660
394 Cys Gln Cys Asn Pro His Gly Ser Tyr Gly Gly Thr Cys Asp Pro
395                               665                               670                               675
397 Ala Thr Gly Gln Cys Ser Cys Arg Pro Gly Val Gly Gly Leu Arg
398                               680                               685                               690
400 Cys Asp Arg Cys Glu Pro Gly Phe Trp Asn Phe Arg Gly Ile Val
401                               695                               700                               705
403 Thr Asp Gly Arg Ser Gly Cys Thr Pro Cys Ser Cys Asp Pro Gln
404                               710                               715                               720
406 Gly Ala Val Arg Asp Asp Cys Glu Gln Met Thr Gly Leu Cys Ser

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RAW SEQUENCE LISTING ERROR SUMMARY
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fyi

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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Seq#:3357; N Pos. 1312,1314,1315,1316
Seq#:3424; N Pos. 622
Seq#:3444; N Pos. 3317
Seq#:3699; N Pos. 1330,1333,1334
Seq#:3762; Xaa Pos. 1
Seq#:4012; N Pos. 154
Seq#:4125; N Pos. 2971
Seq#:4152; N Pos. 13
Seq#:4220; N Pos. 1380
Seq#:4269; N Pos. 297
Seq#:4646; N Pos. 2233,3036,3039,3677,3681
Seq#:4650; N Pos. 22,129,159,164,166,240,274,886,928
Seq#:4651; N Pos. 622,764,774,871,984,1088
Seq#:4653; N Pos. 458
Seq#:4663; N Pos. 304,306,307,2390,3160,3162,3164,3165,3166
Seq#:4680; N Pos. 98,104,182,357,416,425,478,643
Seq#:4686; N Pos. 16,24,27,31,58,79,161,305,450,520,561,882,990,991,992,997
Seq#:4686; N Pos. 999,1001,1002,1003,1006,1214,1254,1307,1446,1626,1701
Seq#:4694; N Pos. 85,88,90,130,132,135
Seq#:4723; N Pos. 1395,1398,1399,1406,1408
Seq#:4755; N Pos. 512
Seq#:4770; Xaa Pos. 199,201,202
Seq#:4800; N Pos. 97
Seq#:4803; N Pos. 1225
Seq#:4828; Xaa Pos. 936
Seq#:4880; N Pos. 149
Seq#:4943; N Pos. 88,114,116,134,146,214,295,299,308,316,325,361,365,370
Seq#:4943; N Pos. 417,571,2774,2814,3554,3570,3590,3591,3601,3649,3714,3768
Seq#:4943; N Pos. 3809,3813,3844,3877,3881
Seq#:4971; N Pos. 1178,3019,3021
Seq#:4972; Xaa Pos. 386
Seq#:4977; N Pos. 2416,2418,3920
Seq#:4984; N Pos. 221,224,389,391,393,1309,1311,1638,1640,1643,1645,1647
Seq#:4984; N Pos. 1812
Seq#:4987; N Pos. 385,542,558,560,567,688,840
Seq#:4988; N Pos. 192,249,688,864,889,1297
Seq#:4990; Xaa Pos. 436
Seq#:5065; N Pos. 1234
Seq#:5066; N Pos. 1076
Seq#:5083; N Pos. 2355,2693,2774,3036,3410,3456,3474
Seq#:5298; N Pos. 6
Seq#:5506; N Pos. 3606
Seq#:5527; N Pos. 1350
Seq#:5747; N Pos. 1822
Seq#:5763; N Pos. 6
Seq#:6142; N Pos. 2378,2516

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Seq#:6189; N Pos. 1234,1235,1236,1237,1238,1239,1240,1241,1242,1243,1244
Seq#:6189; N Pos. 1245,1246,1247,1248,1249,1250,1251,1252,1253,1254,1255
Seq#:6189; N Pos. 1256,1257,1258,1259,1260,1261,1262,1263,1264,1265,1266
Seq#:6189; N Pos. 1267,1268,1269,1270,1271,1272,1273,1274,1275,1276,1277
Seq#:6189; N Pos. 1278,1279,1280,1281,1282,1283,1284,1285,1286,1287,1288
Seq#:6189; N Pos. 1289,1290,1291,1292,1293,1294,1295,1296,1297,1298,1299
Seq#:6189; N Pos. 1300,1301,1302,1303,1304,1305,1306,1307,1308,1309,1310
Seq#:6189; N Pos. 1311,1312,1313,1314,1315,1316,1317,1318,1319,1320,1321
Seq#:6189; N Pos. 1322,1323,1324,1325,1326,1327,1328,1329,1330,1331,1332
Seq#:6189; N Pos. 1333

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L:9584 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:112 after pos.:300
L:9586 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:112 after pos.:350
L:9588 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:112 after pos.:400
L:48134 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:567 after pos.:50
L:53753 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:638 after pos.:0
L:102574 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1140 after pos.:500
L:102576 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1140 after pos.:550
L:102578 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1140 after pos.:600
L:126914 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1394 after pos.:6950
L:128711 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1414 after pos.:550
L:128713 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1414 after pos.:600
L:152330 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1704 after pos.:500
L:174136 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1894 after pos.:850
L:187476 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2034 after pos.:1700
L:201401 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2206 after pos.:0
L:214488 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2347 after pos.:60
L:214491 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2347 after pos.:75
L:226568 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2486 after pos.:15
L:226571 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2486 after pos.:30
L:226574 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2486 after pos.:45
L:226577 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2486 after pos.:60
L:226580 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2486 after pos.:75
L:259442 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2871 after pos.:1000
L:259444 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2871 after pos.:1050
L:259446 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2871 after pos.:1100
L:259741 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2872 after pos.:285
L:259744 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2872 after pos.:300
L:259747 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2872 after pos.:315
L:306110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3355 after pos.:1100
L:306114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3355 after pos.:1200
L:306549 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3356 after pos.:945
L:306552 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3356 after pos.:960
L:306639 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3357 after pos.:1300
L:312229 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3424 after pos.:600
L:314467 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3444 after pos.:3300
L:336462 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3699 after pos.:1300
L:340933 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3762 after pos.:0
L:362023 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4012 after pos.:150
L:372133 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4125 after pos.:2950
L:374750 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4152 after pos.:0
L:381139 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4220 after pos.:1350
L:385440 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4269 after pos.:250
L:420220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4646 after pos.:2200
L:420252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4646 after pos.:3000
L:420278 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4646 after pos.:3650
L:420585 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4650 after pos.:0
L:420589 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4650 after pos.:100
L:420591 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4650 after pos.:150

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L:420593 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4650 after pos.:200
L:420595 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4650 after pos.:250
L:420619 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4650 after pos.:850
L:420621 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4650 after pos.:900
L:420729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4651 after pos.:600
L:420735 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4651 after pos.:750
L:420739 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4651 after pos.:850
L:420743 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4651 after pos.:950
L:420747 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4651 after pos.:1050
L:420824 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4653 after pos.:450
L:421646 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4663 after pos.:300
L:421728 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4663 after pos.:2350
L:421760 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4663 after pos.:3150
L:423522 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4680 after pos.:50
L:423524 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4680 after pos.:100
L:423526 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4680 after pos.:150
L:423534 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4680 after pos.:350
L:423536 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4680 after pos.:400
L:423538 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4680 after pos.:450
L:423544 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4680 after pos.:600
L:424298 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:0
L:424300 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:50
L:424304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:150
L:424310 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:300
L:424314 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:400
L:424318 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:500
L:424320 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:550
L:424332 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:850
L:424336 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:950
L:424338 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:1000
L:424346 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:1200
L:424348 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:1250
L:424350 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:1300
L:424354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:1400
L:424362 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:1600
L:424366 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4686 after pos.:1700
L:424909 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4694 after pos.:50
L:424911 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4694 after pos.:100
L:427890 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4723 after pos.:1350
L:427892 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4723 after pos.:1400
L:430839 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4755 after pos.:500
L:432456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4770 after pos.:195
L:435045 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4800 after pos.:50
L:435310 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4803 after pos.:1200
L:437726 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4828 after pos.:930
L:442727 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4880 after pos.:100
L:450106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:50
L:450108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:100
L:450112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:200

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L:450114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:250
L:450116 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:300
L:450118 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:350
L:450120 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:400
L:450126 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:550
L:450214 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:2750
L:450216 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:2800
L:450246 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:3550
L:450248 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:3600
L:450252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:3700
L:450254 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:3750
L:450256 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:3800
L:450258 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4943 after pos.:3850
L:453027 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4971 after pos.:1150
L:453101 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4971 after pos.:3000
L:453221 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4972 after pos.:375
L:453629 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4977 after pos.:2400
L:453689 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4977 after pos.:3900
L:454311 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4984 after pos.:200
L:454317 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4984 after pos.:350
L:454355 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4984 after pos.:1300
L:454367 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4984 after pos.:1600
L:454375 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4984 after pos.:1800
L:454552 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4987 after pos.:350
L:454558 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4987 after pos.:500
L:454560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4987 after pos.:550
L:454564 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4987 after pos.:650
L:454570 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4987 after pos.:800
L:454616 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4988 after pos.:150
L:454618 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4988 after pos.:200
L:454636 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4988 after pos.:650
L:454644 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4988 after pos.:850
L:454660 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4988 after pos.:1250
L:454864 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4990 after pos.:435
L:461701 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5065 after pos.:1200
L:461760 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5066 after pos.:1050
L:463084 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5083 after pos.:2350
L:463096 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5083 after pos.:2650
L:463100 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5083 after pos.:2750
L:463110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5083 after pos.:3000
L:463126 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5083 after pos.:3400
L:463128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5083 after pos.:3450
L:483249 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5298 after pos.:0
L:501298 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5506 after pos.:3600
L:503088 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5527 after pos.:1300
L:522156 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5747 after pos.:1800
L:523244 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5763 after pos.:0
L:561275 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6142 after pos.:2350
L:561281 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6142 after pos.:2500

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L:565847 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6189 after pos.:1200

L:565849 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6189 after pos.:1250

L:565851 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6189 after pos.:1300